AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method of processing an input audio stereo signal comprising two input signals, for reproduction of a processed stereo signal in an audio stereo reproduction system comprising at least one pair of loudspeaker elements, the method comprising the steps of:

a) providing a mid input signal (M) and a side input signal (S),

b) producing a left output signal for transmission to a left loudspeaker in said pair, which is, or is equivalent to, the sum of the mid input signal (M) and the side input signal (S), the mid input signal (M) being attenuated by a factor α and/or the side input signal (S) being amplified a factor β, the factor α and/or β corresponding to an attenuation factor α in the range – 3 dB to –15 dB;

c) producing a right output signal for transmission to a right loudspeaker in said pair, which is, or is equivalent to, the sum of the mid input signal (M) and the side signal (S) phase shifted 180°, the mid input signal (M) being attenuated by a factor α and/or the side input signal (S) being amplified a factor β, the factor α and/or β corresponding to an attenuation factor α in the range – 3 dB to –15 dB;

the method further including the step of:

- at least a part of the side input signal (S) or the mid input signal (M) in the frequency range 4 kHz - 9 kHz is phase shifted at least 45° but no more than 135° relative to the other signal prior to or at the production of the left and right output signals in steps b) and c).

2. (Currently Amended) ~~Method~~ The method according to claim 1, wherein at least the part of the mid input signal (M) or the side input signal (S) in the frequency range 6 kHz - 9 kHz is phase shifted at least 45° but no more than 135° with respect to the other signal.

3. (Canceled)

4. (Currently Amended) ~~Method~~The method according to claim 1, wherein:

- in step a) the mid input signal (M) is obtained as the sum of a left input signal (L) and a right input signal (R), and

- in step a) the side input signal (S) is obtained as the difference of the left input signal (L) and the right input signal (R).

5. (Canceled)

6. (Previously Presented) The method according to claim 3, wherein the attenuation factor α is in the range -6 dB to -12 dB.

7. (Currently Amended) ~~Method~~The method according to claim 3, wherein the attenuation factor α and/or the amplification factor ß is frequency dependent.

8. (Currently Amended) ~~Method~~The method according to claim 1, wherein the loudspeaker elements are closely located.

9. (Currently Amended) ~~Method~~The method according to claim 1, wherein the pair of loudspeaker elements consists of a pair of identical loudspeaker elements being acoustically isolated from each other, and located within less than one quarter of the shortest wavelength emitted by the elements, or, if the shortest wavelength emitted by the elements is less than 68 cm, less than 17 cm.

10. (Currently Amended) ~~Method~~The method according to claim 1, wherein substantially all of the side input signal (S) or the mid input signal (M) is phase shifted approximately 90°.

11. (Currently Amended) ~~Method~~The method according to claim 1, wherein the phase shift is accomplished by a frequency dependent filter which is an all pass filter.

12. (Currently Amended) ~~Method~~The method according to claim 1, wherein the phase shift is accomplished by digital signal processing by a Hilbert transform.

13. (Currently Amended) ~~Method~~The method according to claim 1, wherein the mid input signal (M) is delayed with a time corresponding to the delay of the phase shifting means.

14. (Currently Amended) ~~Device~~ A device for processing an input audio stereo signal comprising two input signals, for reproduction of a processed stereo signal in an audio stereo reproduction system comprising at least one pair of loudspeaker elements, the device comprising:

a) means for producing a left output signal for transmission to a left loudspeaker in said pair, which is, or is equivalent to, the sum of the mid input signal (M) and the side input signal (S), the mid input signal (M) being attenuated by a factor α and/or the side input signal (S) being amplified a factor β, the factor α and/or β corresponding to an attenuation factor α in the range – 3 dB to –15 dB

b) means for producing a right output signal for transmission to a right loudspeaker in said pair, which is, or is equivalent to, the sum of the mid input signal (M) and the side signal (S) phase shifted 180°, the mid input signal (M) being attenuated by a factor α and/or the side input signal (S) being amplified a factor β, the factor α and/or β corresponding to an attenuation factor α in the range – 3 dB to –15 dB;

wherein the device further comprises:

c) means for phase shifting at least a part of the side input signal (S) or the mid input signal (M) in the frequency range 4 kHz - 9 kHz at least 45° but no more than 135° relative to the other signal prior to or at the production of the left and right output signals in steps a) and b).

15. (Currently Amended) ~~Device~~The device according to claim 14,further comprising means for phase shifting at least the part of the mid input signal (M) or the side input signal (S) in the frequency range 6 kHz - 9 kHz at least 45° but no more than 135° with respect to the other signal.

16. (Canceled)

17. (Currently Amended) ~~Device~~The device according to claim 14,wherein the device further comprises means for providing a side input signal (S) and a mid input signal (M), and that the device is arranged to provide the mid input signal (M) as the sum of a left input signal (L) and a right input signal (R), and the side input signal (S) as the difference of the left input signal (L) and the right input signal (R).

18. (Canceled)

19. (Currently Amended) ~~Device~~The device according to claim 16,wherein the attenuation factor α is in the range -6 dB to -12 dB.

20. (Currently Amended) ~~Device~~The device according to claim 16,wherein the attenuation factor α and/or the amplification factor ß is frequency dependent.

21. (Currently Amended) ~~Device~~The device according to claim 14,wherein the loudspeaker elements are closely located.

22. (Currently Amended) ~~Device~~The device according to claim 14,wherein the pair of loudspeaker elements consists of a pair of identical loudspeaker elements being acoustically isolated from each other, and located within less than one quarter of the shortest wavelength emitted by the elements, or, if the shortest wavelength emitted by the elements is less than 68 cm, less than 17 cm.

23. (Currently Amended) ~~Device~~The device according to claim 14,wherein substantially all of the side input signal (S) or the mid input signal (M) is phase shifted approximately 90°.

24. (Currently Amended) ~~Device~~The device according to claim 14,wherein the phase shift is accomplished by a frequency dependent filter which is an all pass filter.

25. (Currently Amended) ~~Device~~The device according to claim 14,wherein the phase shift is accomplished by digital signal processing means by a Hilbert transform.

26. (Currently Amended) ~~Device~~The device according to claim 14,wherein the attenuation factor α and/or the amplification factor ß is frequency dependent,

wherein the phase shift is accomplished by a frequency dependent filter which is an all pass filter, and

wherein the mid input signal (M) is delayed with a time corresponding to the delay of the phase shifting means.

27. (Currently Amended) ~~System~~A system, for reproduction of an input audio stereo signal comprising two input signals consisting of a mid input signal (M) and a side input signal (S), or of a kind from which a mid input signal (M) and a side input signal (S) are derivable, such as a left input signal (L) and a right input signal (R), comprising a pair of loudspeaker elements, the system further comprising:

a) means for producing a left output signal for transmission to a left loudspeaker in said pair, which is, or is equivalent to, the sum of the mid input signal (M) and the side input signal (S), the mid input signal (M) being attenuated by a factor α and/or the side input signal (S) being amplified a factor β, the factor α and/or β corresponding to an attenuation factor α in the range – 3 dB to –15 dB;

b) means for producing a right output signal for transmission to a right loudspeaker in said pair, which is, or is equivalent to, the sum of the mid input signal (M) and the side signal (S) phase shifted 180°, the mid input signal (M) being attenuated by a factor α and/or the side input signal (S) being amplified a factor β, the factor α and/or β corresponding to an attenuation factor α in the range – 3 dB to –15 dB;

wherein the system further comprises:

c) means for phase shifting at least a part of the side input signal (S) or the mid input signal (M) in the frequency range 4 kHz - 9 kHz at least 45° but no more than 135° relative to the other signal prior to or at the production of the left and right output signals in steps a) and b).

28. (Currently Amended) ~~System~~ The system according to claim 27, wherein the system further comprises means for phase shifting at least the part of the mid input signal (M) or the side input signal (S) in the frequency range 6 kHz - 9 kHz at least 45° but no more than 135° with respect to the other signal.

29. (Currently Amended) ~~System~~ The system according to claim 27,wherein the pair of loudspeaker elements consists of a pair of identical loudspeaker elements being acoustically isolated from each other, and located within less than one quarter of the shortest wavelength emitted by the elements, or, if the shortest wavelength emitted by the elements is less than 68 cm, less than 17 cm.